

Save Our Water Supply: AVOID RUNOFF

Maintaining a safe, clean water supply is important for everyone's health. From farmers who need clean water to grow food to animals who need safe water to drink and live in, keeping our water unpolluted is vital to the Valley. That's why our storm water runoff needs to stay clean.

What is runoff?

When raindrops splash onto the street and flow down the gutter, the water ends up in storm drains. This rainwater picks up contaminants along the way and carries them to ponding basins, canals, creeks or the San Joaquin River. The water can pick up motor oil, bug killers and trash, which end up seeping into our groundwater — and groundwater is our drinking water.

Irrigation runoff is wasted water.

When the water from our irrigation systems runs off the soil or gets sprayed onto paved areas, it washes contaminants off plants and paved areas into our storm drains. Contaminants such as fertilizers, insecticides, weed killers, oils and grease can get carried into our storm drain system and may end up in our drinking water. By eliminating irrigation runoff, we reduce the risk of contaminating our water which can lead to costly water supply cleanup.



Tips For Avoiding Irrigation Runoff

Anyone who has ever seen a landscape being watered to the point where the water puddles and either runs down the sidewalk, into the gutter, or on to the street has witnessed “irrigation runoff.” Runoff is caused by sprinklers spraying onto paved areas and/or by running the irrigation system for too long of a cycle. Monitor the spray pattern of sprinklers and install nozzles that are appropriate for the area. Then determine how long to run your irrigation cycle by doing the following:

Step One: Detect the runoff point

Use a watch to determine the length of time it takes to reach the runoff point from your irrigation system. Observe the beginning time on the watch; start your sprinklers and observe the irrigation until you see water accumulating (puddling) and/or running onto the sidewalks or gutters; again observe your watch. The runoff point is the length of time between when you first observed runoff and the beginning time. To prevent runoff do not exceed this short length of time during any one irrigation cycle.

Step Two: Set your sprinkler controller appropriately

Use the features on your controller to your advantage. For example, if your landscape requires 12 minutes of irrigation and your runoff point is four minutes, then set three start times of four minutes each no more than two hours apart. Using short cycles not only stops runoff but gives a more even distribution of water to the area being irrigated. Monthly adjust your controller to allow for season changes. In the winter months, turn your controller to the “off” position and/or reduce the amount of irrigation. To help with water pressure set your controller start time(s) at odd times, such as 9:37am or 1:42 am, if your controller features allow you to do so.

Runoff in the Fresno-Clovis area drains to ponding basins and replenishes our groundwater, the source of our drinking water. Protect our water by using fewer pesticides and avoiding toxic products.

Water-Wise GARDENING TIPS

Here are some ways to have a healthy garden while conserving water:

- Choose plants classified by water needs of very low, low and medium.
- Aerate lawns that are on compacted or heavy clay soils to increase water penetration into the soil and to reduce runoff.
- Mulch all flowerbeds with up to 4 inches of organic (bark, wood chips, newspaper, straw) or inorganic (gravel, pavers, plastic, shredded tires) material to reduce evaporation, moderate soil temperature and suppress weeds.
- Plants with similar water needs should be planted together.
- Adjust your irrigation controller to allow for weather conditions, plant needs and soil conditions.
- Consider drip irrigation — the most efficient method of irrigation. It's easy to install, whether converting a sprinkler system or starting from scratch.
- Reduce lawn size or eliminate unused lawn areas. Consider replacing them with low water-use ground cover plants or decorative mulch.
- Mow lawn higher during summer months to reduce plant water needs, reduce water evaporation from the soil surface, and suppress weeds.
- Apply only slow-release fertilizers that stay available to the plant for longer periods of time and do not encourage succulent, water-hungry growth.
- Periodically manually turn on your irrigation system to check for leaks and broken equipment, then make repairs.
- When checking the system, monitor the spray pattern of sprinklers and install nozzles that are appropriate for irrigated areas to avoid spraying water on paved surfaces.
- Sweep sidewalks and patios instead of hosing them off.



For more information contact:
UC Cooperative Extension Master Gardeners
at (559) 456-7564 or <http://mgfresno@ucdavis.edu>,
or the City of Fresno Water Conservation Program
at (559) 621-5480 or www.fresnowater.org.

To dispose of unused pesticides and other household hazardous waste, call the County of Fresno at (559) 262-4259 for a drop-off site near you.



City of
FRESNO
WATER DIVISION
1910 E. University
Fresno, CA 93703-2988

WATERING SCHEDULE	
SPRING / SUMMER March 2 - November 30	WINTER December 1 - March 1
NO WATERING MONDAYS	
Tues / Thurs / Sat Odd Numbered Addresses (Ending in 1,3,5,7,9)	Saturday Odd Numbered Addresses (Ending in 1,3,5,7,9)
Wed / Fri / Sun Even Numbered Addresses (Ending in 0,2,4,6,8)	Sunday Even Numbered Addresses (Ending in 0,2,4,6,8)
WATERING TIMES	
ANYTIME EXCEPT 6AM TO 8AM • 11AM TO 7PM	ANYTIME ON YOUR WATERING DAY

To report water waste, call the City of Fresno Water Division at 621-5480.

PLANT GUIDE

For Low Water-Use Species

The plants listed in this brochure are water-wise, which means they require a minimal amount of water to thrive in the Central Valley as classified by Sunset's Garden Climate Zone 8 or 9. Because plants have many common names, the botanical names are also listed. For more information on each plant, you may consult the *Sunset Western Garden Book* or other reliable sources.

ZONE 8

Cold-air Basins of California's Central Valley

Growing Season: Mid-February through November. This is a valley floor with no maritime influence. Summers are hot; winter lows range from 29° to 13° F / -2° to -11° C. Rain comes in the cooler months.

ZONE 9

Thermal Belts of California's Central Valley

Growing Season: Late February through December. Zone 9 is located in the higher elevations around Zone 8, but its summers are just as hot; its winter lows are slightly higher (temperatures range from 28° to 18° F / -2° to -8° C.) Rainfall pattern is the same as in Zone 8.



TREES

COMMON NAME	Botanical Name
<input type="checkbox"/> Acacia	<i>Acacia</i> spp.
<input type="checkbox"/> African Sumac	<i>Rhus lancea</i>
<input type="checkbox"/> Arizona Cypress	<i>Cupressus arizonica</i>
<input type="checkbox"/> Australian Willow	<i>Geijera parviflora</i>
<input type="checkbox"/> Beefwood	<i>Casuarina</i> spp.
<input type="checkbox"/> Blue Atlas Cedar	<i>Cedrus atlantica</i>
<input type="checkbox"/> California Buckeye	<i>Aesculus californica</i>
<input type="checkbox"/> Carob	<i>Ceratonia siliqua</i>
<input type="checkbox"/> Chaste Tree	<i>Vitex agnus-castus</i>
<input type="checkbox"/> Chinese Pistache	<i>Pistacia chinensis</i>
<input type="checkbox"/> Chitalpa	<i>Chitalpa tashkentensis</i>
<input type="checkbox"/> Crape Myrtle	<i>Lagerstroemia indica</i>
<input type="checkbox"/> Deodar Cedar	<i>Cedrus deodara</i>
<input type="checkbox"/> Desert Willow	<i>Chilopsis linearis</i>

<input type="checkbox"/> Eucalyptus	<i>Eucalyptus</i> spp.
<input type="checkbox"/> Fruitless Olive	<i>Olea europaea</i> spp. (non fruiting varieties available)

<input type="checkbox"/> Goldenrain Tree	<i>Koelreuteria paniculata</i>
<input type="checkbox"/> Hackberry	<i>Celtis sinensis</i>
<input type="checkbox"/> Incense Cedar	<i>Calocedrus decurrens</i>
<input type="checkbox"/> Italian Cypress	<i>Cupressus sempervirens</i>
<input type="checkbox"/> Japanese Pagoda Tree	<i>Sophora japonica</i>
<input type="checkbox"/> Maidenhair Tree	<i>Ginkgo biloba</i>
<input type="checkbox"/> Melaleucca	<i>Melaleucca</i> spp.
<input type="checkbox"/> Oak	<i>Quercus</i> (most species)
<input type="checkbox"/> Pomegranate	<i>Punica granatum</i>
<input type="checkbox"/> Smoke Tree	<i>Cotinus coggygia</i>
<input type="checkbox"/> Strawberry Tree	<i>Arbutus 'Marina'</i>
<input type="checkbox"/> Sweet Bay	<i>Laurus nobilis</i>
<input type="checkbox"/> Sweet Gum (seedless)	<i>Liquidambar styraciflua</i>
<input type="checkbox"/> Western Redbud	<i>Cercis occidentalis</i>

SHRUBS

COMMON NAME	Botanical Name
<input type="checkbox"/> Barberry	<i>Berberis</i> spp.
<input type="checkbox"/> Bottlebrush	<i>Callistemon</i> spp.
<input type="checkbox"/> Bush Anemone	<i>Carpenteria californica</i>
<input type="checkbox"/> Bush Morning Glory	<i>Convolvulus cneorum</i>
<input type="checkbox"/> Butterfly Bush	<i>Buddleja davidii</i>
<input type="checkbox"/> California Fuchsia	<i>Zauschneria californica</i>
<input type="checkbox"/> California Holly Grape	<i>Mahonia pinnata</i>
<input type="checkbox"/> California Lilac	<i>Ceanothus</i> spp.
<input type="checkbox"/> Cape Plumbago	<i>Plumbago auriculata</i>
<input type="checkbox"/> Coffeeberry	<i>Rhamnus californica</i>
<input type="checkbox"/> Cotoneaster	<i>Cotoneaster</i> spp.
<input type="checkbox"/> Coyote Bush	<i>Baccharis pilularis</i>
<input type="checkbox"/> Dwarf Olive	<i>Olea europaea</i>
<input type="checkbox"/> Emu Bush	<i>Eremophila</i> spp.
<input type="checkbox"/> Flannel Bush	<i>Femontodendron californicum</i>
<input type="checkbox"/> Flowering Quince	<i>Chaenomeles</i>
<input type="checkbox"/> Forsythia	<i>Forsythia x intermedia</i>
<input type="checkbox"/> Grevillea	<i>Grevillea</i> spp.
<input type="checkbox"/> Heavenly Bamboo	<i>Nandina domestica</i>
<input type="checkbox"/> Indian Hawthorne	<i>Raphiolepis</i> spp.
<input type="checkbox"/> Jerusalem Sage	<i>Phlomis</i> spp.
<input type="checkbox"/> Juniper	<i>Juniperus</i> spp.
<input type="checkbox"/> Kangaroo Paw	<i>Anigozanthos</i> spp.
<input type="checkbox"/> Kerria	<i>Kerria japonica</i>
<input type="checkbox"/> Mugho Pine	<i>Pinus mugo</i>
<input type="checkbox"/> Myrtle	<i>Myrtus communis</i>
<input type="checkbox"/> Oleander	<i>Nerium oleander</i>
<input type="checkbox"/> Photinia	<i>Photinia</i> spp.
<input type="checkbox"/> Pineapple Guava	<i>Feijoa sellowiana</i>
<input type="checkbox"/> Rockrose	<i>Cistus</i> (all species)
<input type="checkbox"/> Rosemary	<i>Rosmarinus officinalis</i>
<input type="checkbox"/> Russian Olive	<i>Elaeagnus angustifolia</i>
<input type="checkbox"/> Snowberry	<i>Symphoricarpos</i> spp.
<input type="checkbox"/> Sweet Box	<i>Sarcococca ruscifolia</i>
<input type="checkbox"/> Sweet Olive	<i>Osmanthus</i> spp.
<input type="checkbox"/> Texas Ranger	<i>Leucophyllum</i> spp.
<input type="checkbox"/> Toyon	<i>Heteromeles arbutifolia</i>
<input type="checkbox"/> Xylosma	<i>Xylosma congestum</i>
<input type="checkbox"/> Yew Pine	<i>Podocarpus</i> spp.

PERENNIALS & BULBS

COMMON NAME	Botanical Name
<input type="checkbox"/> African Daisy	<i>Osteospermum fruticosum</i>
<input type="checkbox"/> Aloe	<i>Aloe</i> spp.
<input type="checkbox"/> Artemisia	<i>Artemisia</i> spp.
<input type="checkbox"/> Bearded Iris	<i>Iris</i> hyb.
<input type="checkbox"/> Blanket Flower	<i>Gaillardia</i> spp.
<input type="checkbox"/> Cast Iron Plant	<i>Aspidistra elatior</i>
<input type="checkbox"/> Coneflower	<i>Echinacea</i> spp.
<input type="checkbox"/> Coreopsis	<i>Coreopsis</i> spp.
<input type="checkbox"/> Daylily	<i>Hemerocallis</i> hyb.
<input type="checkbox"/> Deer Grass	<i>Muhlenbergia rigens</i>
<input type="checkbox"/> Dusty Miller	<i>Senecio cineraria</i>
<input type="checkbox"/> Flax Lily	<i>Dianella tasmanica</i>
<input type="checkbox"/> Fortnight Lily	<i>Dietes</i> spp.
<input type="checkbox"/> Gaura	<i>Gaura lindheimeri</i>
<input type="checkbox"/> Geranium	<i>Pelargonium</i> spp.
<input type="checkbox"/> Germander	<i>Teucrium</i> spp.
<input type="checkbox"/> Hen and Chicks	<i>Echeveria</i> spp.
<input type="checkbox"/> Jupiter's Beard	<i>Centranthus ruber</i>
<input type="checkbox"/> Lamb's Ears	<i>Stachys byzantina</i>
<input type="checkbox"/> Lavender	<i>Lavandula</i> spp.
<input type="checkbox"/> Lily of the Nile	<i>Agapanthus</i> spp.
<input type="checkbox"/> Liriope	<i>Liriope</i> spp.
<input type="checkbox"/> Maiden Grass	<i>Miscanthus sinensis</i>
<input type="checkbox"/> Matilija Poppy	<i>Romneya coulteri</i>
<input type="checkbox"/> Naked Lady	<i>Amaryllis belladonna</i>
<input type="checkbox"/> New Zealand Flax	<i>Phormium tenax</i>
<input type="checkbox"/> Oregano	<i>Origanum</i> spp.
<input type="checkbox"/> Pink Muhly Grass	<i>Muhlenbergia capillaris</i>
<input type="checkbox"/> Red Yucca	<i>Hesperaloe parviflora</i>
<input type="checkbox"/> Russian Sage	<i>Perovskia atriplicifolia</i>
<input type="checkbox"/> Sage	<i>Salvia</i> spp.
<input type="checkbox"/> Sagebrush	<i>Artemisia</i> spp.
<input type="checkbox"/> Santa Barbara Daisy	<i>Erigeron karvinskianus</i>
<input type="checkbox"/> Society Garlic	<i>Tulbaghia violacea</i>
<input type="checkbox"/> Sundrops	<i>Calylophus</i> spp.
<input type="checkbox"/> Verbena	<i>Verbena</i> spp.
<input type="checkbox"/> Wood Fern	<i>Dryopteris</i> spp.
<input type="checkbox"/> Yarrow	<i>Achillea</i> spp.

GROUNDCOVERS

COMMON NAME	Botanical Name
<input type="checkbox"/> Bearberry Cotoneaster	<i>Cotoneaster dammeri</i>
<input type="checkbox"/> Blue Fescue	<i>Festuca glauca</i>
<input type="checkbox"/> Buffalo Grass	<i>Buchloe dactyloides</i>
<input type="checkbox"/> Cape Weed	<i>Arctotheca calendula</i>
<input type="checkbox"/> Dwarf Plumbago	<i>Ceratostigma plumbaginoides</i>
<input type="checkbox"/> Evergreen Candytuft	<i>Iberis sempervirens</i>
<input type="checkbox"/> Gazania	<i>Gazania</i> hyb.
<input type="checkbox"/> Ground Morning Glory	<i>Convolvulus sabatius</i> (C. mauritanicus)
<input type="checkbox"/> Ice Plant	<i>Delosperma</i> spp.
<input type="checkbox"/> Knotweed	<i>Persicaria capitata</i> (Polygonum capitatum)
<input type="checkbox"/> Myoporum	<i>Myoporum parvifolium</i>
<input type="checkbox"/> Serbian Bellflower	<i>Campanula poscharskyana</i>
<input type="checkbox"/> Snow in Summer	<i>Cerastium tomentosum</i>
<input type="checkbox"/> Stonecrop	<i>Sedum</i> spp.
<input type="checkbox"/> Thyme	<i>Thymus</i> spp.
<input type="checkbox"/> Trailing Lantana	<i>Lantana montevidensis</i>
<input type="checkbox"/> Woolly Yarrow	<i>Achillea tomentosa</i>

VINES

COMMON NAME	Botanical Name
<input type="checkbox"/> Boston Ivy	<i>Parthenocissus tricuspidata</i>
<input type="checkbox"/> Carolina Jessamine	<i>Gelsemium sempervirens</i>
<input type="checkbox"/> Cat's Claw	<i>Macfadyena unguis-cati</i>
<input type="checkbox"/> Honeysuckle	<i>Lonicera</i> spp.
<input type="checkbox"/> Potato Vine	<i>Solanum laxum</i> (S. jasminoides)
<input type="checkbox"/> Star Jasmine	<i>Trachelospermum jasminoides</i>